Journal of Atmospheric Chemistry 9 (1989).

Contents to Volume 9

Volume 9 Nos. 1–3 July–October 1989

ARCTIC HAZE

Special Issue on
Arctic Gas and Aerosol Sampling Program II

Edited by
DANIEL L. ALBRITTON
NOAA Environmental Research Labs., Boulder, U.S.A.

Introduction: Arctic Gas and Aerosol Sampling Program 1

R. C. SCHNELL, T. B. WATSON, and B. A. BODHAINE / NOAA WP-3D Instrumentation and Flight Operations on AGASP-II 3

G. A. HERBERT, R. C. SCHNELL, H. A. BRIDGMAN, B. A. BODHAINE, S. J. OLTMANS, and G. E. SHAW / Meteorology and Haze Structure During AGASP-II, Part 1: Alaskan Arctic Flights, 2–10 April 1986 17

H. A. BRIDGMAN, R. C. SCHNELL, G. A. HERBERT, B. A. BODHAINE, and S. J. OLTMANS / Meteorology and Haze Structure During AGASP-II, Part 2: Canadian Arctic Flights, 13–16 April 1986 49

ELLSWORTH G. DUTTON, JOHN J. DeLUISI, and GARY HERBERT / Shortwave Aerosol Optical Depth of Arctic Haze Measured on Board the NOAA WP-3D During AGASP-II, April 1986 71

T. J. CONWAY and L. P. STEELE / Carbon Dioxide and Methane in the Arctic Atmosphere 81

L. A. BARRIE, G. DEN HARTOG, J. W. BOTTENHEIM, and S. LANDSBERGER / Anthropogenic Aerosols and Gases in the Lower Troposphere at Alert, Canada in April 1986 101

CHARLES A. BROCK, LAWRENCE F. RADKE, JAMIE H. LYONS, and PETER V. HOBBS / Arctic Hazes in Summer over Greenland and the North American Arctic. I: Incidence and Origins 129

YUTAKA ISHIZAKA, PETER V. HOBBS, and LAWRENCE F. RADKE / Arctic Hazes in Summer over Greenland and the North American Arctic. II: Nature and Concentrations of Accumulation-Mode and Giant Particles 149

LAWRENCE F. RADKE and PETER V. HOBBS / Arctic Hazes in Summer over Greenland and the North American Arctic. III: A Contribution from the Natural Burning of Carbonaceous Materials and Pyrites 161

RANDOLPH D. BORYS / Studies of Ice Nucleation by Arctic Aerosol on AGASP-II 169

W. R. LEAITCH, R. M. HOFF, and J. I. MacPHERSON / Airborne and Lidar Measurements of Aerosol and Cloud Particles in the Troposphere over Alert, Canada in April 1986 187

B. A. BODHAINE, E. G. DUTTON, J. J. DeLUISI, G. A. HERBERT, G. E. SHAW, and A. D. A. HANSEN / Surface Aerosol Measurements at Barrow During AGASP-II 213

FRANCISCO P. J. VALERO, THOMAS P. ACKERMAN, and WARREN J. Y. GORE / The Effects of the Arctic Haze as Determined from Airborne Radiometric Measurements During AGASP II 225

SAMUEL J. OLTMANS, WOLFGANG E. RAATZ, and WALTER D. KOMHYR / On the Transfer of Stratospheric Ozone into the Troposphere near the North Pole 245

ANTONY D. CLARKE / In-Situ Measurements of the Aerosol Size Distributions, Physicochemistry and Light Absorption Properties of Arctic Haze 255

PATRICK J. SHERIDAN / Analytical Electron Microscope Studies of Size-Segregated Particles Collected During AGASP-II, Flights 201–203 267

A. D. A. HANSEN, T. J. CONWAY, L. P. STEELE, B. A. BODHAINE, K. W. THONING, P. TANS, and T. NOVAKOV / Correlations Among Combustion Effluent Species at Barrow, Alaska: Aerosol Black Carbon, Carbon Dioxide, and Methane 283

JAN W. BOTTENHEIM and ALAN J. GALLANT / PAN over the Arctic; Observations During AGASP-2 in April 1986 301

Y. S. CHUNG / Concentrations of Atmospheric Constituents Observed at Alert, Canada, in Relation to Air Trajectories and Synoptic Systems 317

DONALD C. THORNTON, ALAN R. BANDY, and ARTHUR R. DRIEDGER III / Sulfur Dioxide in the North American Arctic 331

A. D. A. HANSEN and T. NOVAKOV / Aerosol Black Carbon Measurements in the Arctic Haze During AGASP-II 347

PATRICK J. SHERIDAN and WILLIAM H. ZOLLER / Elemental Composition of Particulate Material Sampled from the Arctic Haze Aerosol 363

NEIL B. A. TRIVETT, DOUGLAS E. J. WORTHY, and KENNETH A. BRICE / Surface Measurements of Carbon Dioxide and Methane at Alert During an Arctic Haze Event in April, 1986 383

CONTENTS TO VOLUME 9

Volume 9 No. 4 November 1989

TIMOTHY J. WALLINGTON and STEVEN M. JAPAR / Fourier Transform Infrared Kinetic Studies of the Reaction of HONO with HNO_3, NO_3 and N_2O_5 at 295 K 399

JERRY M. MELILLO and PAUL A. STEUDLER / The Effect of Nitrogen Fertilization on the COS and CS_2 Emissions from Temperature Forest Soils 411

K. H. BECKER and K. WIRTZ / Gas Phase Reactions of Alkyl Nitrates with Hydroxyl Radicals under Tropospheric Conditions in Comparison with Photolysis 419

G. T. AMANATIDIS, A. F. BAIS, A. G. KELESSIS, C. S. ZEREFOS, and I. C. ZIOMAS / Stratospheric and Total NO_2 Column Measurements with a Modified Canterbury Filter Photometer 435

M. L. WESELY, D. L. SISTERSON, R. L. HART, D. L. DRAPCHO, and I. Y. LEE / Observations of Nitric Oxide Fluxes over Grass 447

M. AHR, A. I. FLOSSMANN, and H. R. PRUPPACHER / On the Effect of the Chemical Composition of Atmospheric Aerosol Particles on Nucleation Scavenging and the Formation of a Cloud Interstitial Aerosol 465

V. S. CONNORS, T. MILES, and H. G. REICHLE JR. / Large-Scale Transport of a CO-Enhanced Air Mass from Europe to the Middle East 479

Announcement 497